



ZEROING IN ON DATA

Customized analysis pinpoints evidence of student impact

By Andrew Szczepaniak

In the predawn hours, Tami Chowdhury taps on her keyboard, pausing to sip her coffee, and thinks about whether the previous day's learning strategies helped her junior high students achieve identified behavioral goals. Chowdhury is taking part in the "Mind in the Making" course, provided jointly by the Gilbert Public School District (near Phoenix, Ariz.) and Rio Salado College. Whether it's early in the morning, after the kids are in bed, or somewhere in between, over

several months, Chowdhury and her peers find time to collaboratively reflect on what they are learning in the course, share how they are applying new knowledge in practice, and look for evidence of student impact. With the right technology, learners have found that ongoing application of knowledge along with reflection and generation around practice are easily facilitated. Application-related discussions can occur at any time, and over extended periods of time, as educators work like researchers to put theory into practice and test their hypotheses.

Administrators like me can move beyond assump-

for 24/7 access. Norms for this generation include the freedom to work when and where you want and the ability to customize work and learning environment. Collaboration among colleagues is key to getting things done, resources and tools must be available and fast, and innovation is about finding new ways to accomplish work. These norms, typified in Forsyth's professional learning 2.0 strategy, translate into a learning community that meets educator needs today.

This professional learning strategy will not work without a strong partnership and shared vision between a district's curriculum/professional learning office and technology services (see box at right.)

Maximizing technology for professional learning is not about using a stand-alone technology-based tool or resource. It is about engaging teachers in real-time, product-based learning focused on providing meaningful collaboration.

"By mobilizing the collective knowledge, capability, and resources embodied within broad networks of participants, smart firms (or school districts) can accomplish great things" (Tapscott, 2009). This strategy is a vision for transforming adult learning so they are better prepared with high-quality digital content and tools to connect with students.

Clayton Christensen (2008) provides further support for professional learning 2.0 by emphasizing that the "impact that structure has on innovation lies at the root of many public schools' innovative disabilities." If leaders believe that professional learning impacts student achievement, then why don't we begin with innovating learning structures on behalf of teachers? The possibilities are endless.

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Collaboration for success

Crafting a professional learning 2.0 strategy requires collaboration and commitment among district support staff — professionals in curriculum, professional learning, and technology. We found success with these elements:

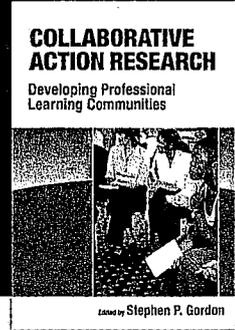
- 1. District staff became** knowledgeable about the tools and how to leverage them in a new way to provide professional learning opportunities.
- 2. Teacher leaders engaged in** designing the blended courses and content to share across the district.
- 3. The district team crafted a** realistic rollout plan that took into consideration engaging all teachers across the district, communicating progress on an ongoing basis, and determining benchmarks for content/course development.

Southern Regional Education Board. (2005, March). *Principles of effective learning objects: Guidelines for development and use of learning objects for the SCORE Initiative*. Atlanta: Author.

Tapscott, D. (2009). *Grown up digital: How the Net Generation is changing your world*. New York: McGraw-Hill.

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Because no teacher is an island...



Collaborative Action Research

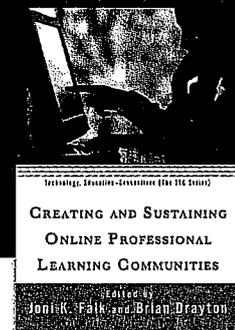
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tions, guesswork, and hope to gather, organize, and analyze outcome data in ways that are now possible using a finely tuned professional development management and evaluation system. We are just starting out, but the early results are exciting: Chowdhury and the other participants in the application project observed positive changes in student engagement and behavior since they began applying new learning about brain research.

How do you gather data to demonstrate impact? With the help of the team at My Learning Plan Inc., our professional development management and evaluation system (see box on p. 39), we sought to learn how technology could assist us. At Gilbert, our mission is “Helping to move your professional practice forward,” and we have been working to uphold that by offering

a variety of courses aligned to our district goals. More recently, we have been thinking deeply about NSDC’s purpose and are committed to connecting high-quality professional learning to improved student learning. We had an idea but no hard evidence to know if our district’s professional learning impacted our students in a meaningful way. We wanted to start with small, concrete steps.

GETTING STARTED:

CREATING FORMS

I contacted Robin Ocheltree, the instructor of the “Mind in the Making” brain-based research course offered through our electronic catalog. Ocheltree had expressed openness about being involved in a new process, and, like me, she was eager to see more tangibly and specifically how the learning that she would facilitate would make its way into participants’ classrooms. First, we talked through the data-gathering process, then we developed a form that would enable teachers to document their application intentions and note the indicators of changes in practice and impact on student outcomes that they would use. We also created an online log form for participants to use to regularly journal about what they were applying as well as the expected and achieved outcomes. It was important to link the log form to what we call our TeamRoom to create a hub for sustained collegial conversation through threaded discussions and file sharing, based on course content. Participants were able to collaborate and discuss their findings and submit log forms from one simple interface. Finally, we set up a reflection form to provide a structured method for educators to record what they applied and the effects on their students using previously entered indicators and baseline data. (See excerpts of forms from Gilbert’s system on p. 38.)

Useful guiding questions

- Are educators constructing new content and operational knowledge from professional learning?
How do you know?
- Do they apply new learning in classroom practice?
How can you support transfer?
- Are changes in teaching impacting student learning?
How can that be demonstrated?
- Is increased student learning translating into improved performance?
- Do your assessments reflect the student learning and achievement results you’re seeking?

EXCERPTS FROM DOCUMENTATION FORMS

Application request form AN EXCERPT

Expected student outcomes

Indicate what you expect your students will be able to know or do as a result of your change in practice.

Select desired student outcomes

Change in educator practice

As a result of your new knowledge, describe below which practice you will incorporate in your classroom to effect your desired student outcomes.

Type of change

If other, describe change

Describe how this change will impact expected student outcomes.

Reflective practice log form AN EXCERPT

Submit this form once each week to reflect on your classroom application of new ideas.

Focus questions

What did you apply from the course in your practice this week?

What did you anticipate would happen as a result, in terms of student performance?

What actually happened?

What you will do differently?

What do you still need to understand more deeply?

Application reflection form AN EXCERPT

Did your new knowledge lead to the desired changes in your practice?

If yes, what evidence do you have that demonstrates that change?

If no, describe why and what changes you will make now.

Describe the qualitative and/or quantitative data that you gathered about student performance.

What can you infer about how your teaching impacted student outcomes?

Were your expected student outcomes achieved?

Have you shared the results of this project?

If yes, describe the feedback that you received and your next steps.

If no, describe your plans and time frame for sharing the results.

Data gathering model

The model that Gilbert adapted was developed by My Learning Plan Inc. and is based on concepts from *Evaluating Professional Development* (Guskey, 2000) and *Assessing Impact* (Killion, 2008).

None of this could be done without careful planning and development of a support process that would enable all to maximize the online learning environment. I strategically select and plan with each instructor for the courses involved in the application projects. I meet with each instructor individually while the courses are being developed before we enter information in our online system. During this meeting, I provide detailed rationale about assessing impact, and I describe how our district is looking for changes in educator practice and evidence of impact on student achievement.

Once the instructor has a deep understanding of the process, we customize and review the forms together. Then I develop a self-guided tour of the process for the participants and present the new opportunities around assessing impact with each cohort of learners. We demonstrate the entire approach step-by-step to show participants how easy it is and to highlight why and how professional learning is becoming a change agent for our district. I also make sure that I am available at any time for questions in order to demonstrate a cycle of continual support.

In addition, I have embedded this process into the courses that I teach. To build leadership capacity, instructors will begin to introduce the process on their own.

FACILITATING LEARNING:

MONITORING APPLICATION

With the infrastructure in place, participating teachers met with Ocheltree weekly over a four-month period and collaborated online to engage in sustained learning, supporting the notion that “in reality, staff development is ongoing learning” (Killion, 2008, p. 25). An overall educator goal was to apply brain research to create a safe, orderly, and supportive learning environment. Chowdhury’s personal goal, as stated on her application form, was to see improved student self-regulation. She planned to achieve this goal by mod-

About My Learning Plan Inc.

MyLearningPlan® is a web-based system used by educational organizations to plan, manage, and evaluate their professional development programs. Based in Great River, N.Y., the company has customers throughout the U.S., Canada, the Caribbean, and the Middle East.

For more information, please visit www.mylearningplan.com.

ifying her practice to improve her reactions to certain student behaviors. Throughout the course, Chowdhury and her partners used the online TeamRoom to discuss what they were learning and applying in their classrooms. They shared examples of practice and student performance in relation to their new strategies. Chowdhury discussed her experience with one particular target student, including a description of his baseline behavior and how it changed over time. The technology also empowered team members to process their experiences in online log forms, noting what they applied, the anticipated results, and real outcomes.

While the group learned, applied, and looked for evidence of student improvements, Ocheltree and I used MyLearningPlan to organize and track the records of application successes and challenges that were unfolding. We had set up multiple measures to draw from, yet the electronic report-writer enabled us to amass all of the data in a single, simple interface for efficient analysis. On an ongoing basis, we scanned compilations of the TeamRoom discussions and reviewed the logs to note evidence of knowledge application, and we were also able to make midcourse adjustments based on timely information.

Laying the foundation for this course and future courses was critical for a successful implementation, and an important goal for our department. I needed to begin building a transparent structure that would indicate to instructors and participants that, by being involved in this kind of project, they would not only shape their own practice, but also inform what we offer and how we structure professional learning in the district down the road. My underlying focus was on how to scale the process to include application and impact elements in more courses over time, and to go deeper by adding meaningful layers to the process.

One of these additional components is classroom walk-throughs to identify and document the evidence in action.

Chowdhury reflected on the process: “The TeamRoom and application project helped me narrow down the most important theories and provided me the tools to apply these theories directly in my classroom. From the ‘Mind in the Making’ course, I learned that bonding with students is very important to keep them engaged and interested in our teaching and in their own learning.”

Gilbert Public School District

Gilbert, Ariz.

Grades: K-12

Schools: 40

Enrollment: 39,495

Staff: 5,100

Racial/ethnic mix:

White:	72%
Black:	5%
Hispanic:	17%
Asian/Pacific Islander:	5%
Native American:	1%
Other:	0%

Limited English proficient: 4%

Languages spoken: English, Spanish, Vietnamese, Chinese, Urdu, Farsi, and others

Free/reduced lunch: 22%

Special education: 13%

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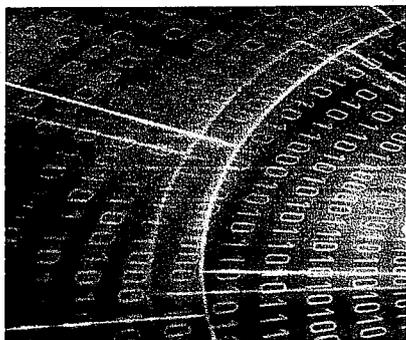
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**GATHERING DATA:
ANALYZING RESULTS**

At the end of the year, participating educators used our online system to contemplate and document what transpired. Via online reflection forms, all respondents indicated that they changed their practice in at least one way and that they noted one or more positive changes in student behavior. Sources of evidence included log

Without technology, we would never be able to assemble, sort, organize, and report essential information within a useful time frame.

entries about student performance and summaries of student interviews. In addition, teachers examined attendance records, grades on classroom assessments, and student work to look for substantiated improvements in appropriate student engagement. Based on one measure, 50% of respondents stated that grades had improved and that students had enhanced their problem-solving skills. Ocheltree and I used the system to collect data and share it among the group, using customized reports to create summaries of both the expressed expectations and tangible results.



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Ocheltree said, “With this data, I have been able to adjust my face-to-face teaching, as I was able to read what the teachers posted as well as the concerns they were having with the course materials. Even though they are teachers, they process the information much like their own students. After they leave each class, they have many unanswered questions, which they discussed in the TeamRoom, and that helped them bring their learning alive in their classrooms. The application project has been really beneficial, allowing teachers to share ideas with each other and continue to learn from each other.”

**MOVING FORWARD:
REFINING AND SCALING**

When we first began thinking about linking professional development to teacher practice and student learning, it seemed like a big leap. With the help of our professional development management and evaluation system, we are taking initial steps to gauge the effectiveness of professional learning based on student indicators, rather than only teacher perceptions of satisfaction with professional learning activities.

We’re laying out tremendous expenditures of time

and finances, and now we are compiling data to help us determine if the efforts are reaching our students. Without technology, we would never be able to assemble, sort, organize, and report essential information within a useful time frame.

While Chowdhury and her team were intrigued with their initial outcomes, they agree that there is more to learn and do to realize greater long-term student effects, and we realize that understanding how to proficiently gather and interpret evaluation data is as much an evolving process as learning itself.

Looking ahead, we are using our preliminary findings to inform our district’s adult learning priorities and to enhance our professional learning designs. We believe strongly in learning from our experience to drive continuous improvement, consistent with Stigler & Hiebert (1999), who note that we must “build systems with memory.” We have streamlined our forms, and we are expanding our use of these tools to larger groups of teachers and to a handful of additional courses this year to continue to monitor progress and gather information.

We are also working with other facilitators to articulate anticipated teacher and student outcomes in more specific and measurable terms.

My biggest learning was the value of starting small. We began by systematically assessing knowledge-level learning, then we gradually moved to looking at application and impact data.

The technology allowed us to not only effectively manage all of the in-district and out-of-district professional learning, but also to begin to learn about where and how we should focus our limited resources. Across the board, from budgeting to identifying meaningful learning opportunities to scheduling, our decision making is becoming more well-informed, and we are confident that the technology will only continue to support and enhance these efforts.

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